

When Project Management meets Agile...

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Overview

This whitepaper provides a summary of the points discussed in the Core Consulting Group Breakfast Event held in April 2014

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Introduction

Core Consulting Group holds a breakfast each year for customers and other guests during which a speaker panel discusses a topic of interest with the audience. In April 2014, the chosen topic was “When Agile meets Project Management”. We wanted to explore the similarities and differences between the two approaches to delivery, whether there are opportunities to use parts of each and the degree of change required when adopting Agile. In considering the perspective of the general manager or head of department in a mixed project environment, we also explored how the inputs and outputs of the approaches differed, the problems that might arise and how these differences and problems could be managed.

This paper uses the terms Standard Project and Standard project management to describe the linear, engineering-based project management methods and practices based on PMBoK, on PRINCE2, or a combination of these two. This is to distinguish an approach from what will be referred to as Agile. PMBoK and PRINCE2 are definitely not software development methodologies and, although Agile started from a software development perspective, it has been developed over the years into an overall delivery approach and so we believe that it is valid to make a comparison between the Standard and Agile approaches.

We have avoided terms like traditional and conventional because they can be interpreted as meaning old-fashioned or archaic and we do not believe this to be the case. Our position is that both approaches have their place, where, if done correctly they may be very powerful and successful in delivering what an organisation wants, avoiding unnecessary cost and bureaucracy. Both are equally capable of leading to underperformance if implemented incorrectly or inappropriately.

The structure of this paper is to set out some similarities, differences and areas where decisions have to be made by each organisation with respect to a very high level project lifecycle, separated into before, during and after a project. The comparison meant to highlight some of the notable aspects of the boundaries between Agile and project management and is not intended to be comprehensive or exhaustive.

Approach Similarities

Before a Project

There is always the need to take account of the wider context of the project, the organisation and the details of systems, processes, enterprise and technical architecture and other constraints to ensure that the project delivers the right things: this context may have to be provided to the project rather than being left to it to determine.

Any project must deliver value: its costs should be less than its benefits or it should be of other strategic importance.

During a Project

Some form of progress and status reporting to the sponsors or sources of funding for the project will be expected, although what can and should be reported will vary, as below.

Although the emphasis on collocation tends to be associated with Agile, projects have always preferred to have collocated and dedicated teams.

After a Project

Benefits may be realised long after project finishes, so an assessment of value or benefits before or during a project under either method may be only an estimate and may turn out to be wrong. The organisation outside the project, whether a program, a PMO, a department or a company, must still monitor whether or not the identified value and benefits do indeed get realised and, if not, the reasons why not if future projects are to get closer to their targets.

Approach Differences

Before a Project

Budgeting and forecasting can be very different with respect to the level of detail available. In an Agile project, if it has a business case, the level of detail that will be provided to show how specific costs relate to specific scope may be much reduced to that of a Standard project. Although this may appear negative, it may only be the more mature

project organisations that can truly forecast Standard projects well to a detailed level.

The accounting treatment of project costs for capitalisation may become more difficult if details of the scope of the project are not available at the outset.

The content of Plans and Schedules will be different: the Standard project will typically plan using a product breakdown structure and a work breakdown structure then scheduled to produce artefacts such as Gantt charts. An Agile project may just use a chart on a wall or a Burndown Chart as a means of tracking progress.

In an Agile project the team will be created before the details of the scope are known. In a Standard project, the scope details are used to work out what the team should look like.

During a Project

The time-demands on the user or Product Owner follow a different pattern: in a Standard project, this may mean high time demands at the beginning of a project such as during a requirements-gathering period that then reduces as the documented requirements are approved, followed by a quieter period during which the project creates its deliverables, then a ramping up of user involvement again during testing and subsequent deployment. In an Agile project, the users and the product owner become part of the project team for the duration of the project, making decisions and working with the team on a daily basis. This may be one of the more challenging aspects for an organisation to adopt, since it does mean that the Agile project becomes the day job, not just another activity that has to be fitted within it.

An Agile project may deliver usable product more frequently than the single release of a simple standard project. Standard projects may contain several iterations however.

The usefulness of the different types of reporting data may vary between the approaches.

Since an Agile project set up to run for a defined time with a defined team size has a fixed end date, is set (unless sufficient value has been delivered sooner, in which case the project will be terminated early) asking the project when it is going to finish becomes rather meaningless. Estimating the

project end-date and reassessing it on a regular basis are key responsibilities of a project manager of a Standard project.

Similarly, cost burn rate in a simple Agile project gives little performance or status insight. Forecasting project costs is again a key responsibility of a project manager of a Standard project.

Scope reporting, in the form of a Burndown Chart or similar report, is a feature of an Agile project, with the number of features delivered in each sprint or iteration visible on the chart. In a Standard project, scope is meant to be fixed and is reported only as it is completed, or when it is formally changed.

Repeated sequences of doing and taking stock are used, in Agile projects in the form of sprints or short iterations that are commonly a couple of weeks long with reviews or retrospectives at the end before repeating. In Standard projects, formal or informal boundaries between types of activity in a linear sequence, most formally as gate meetings held at stage boundaries to authorise progression into a following stage. We discussed this in the Breakfast session because we found that the word was being used quite a lot, and it would not be accurate to describe non-Agile approaches as non-iterative

After a Project

The financial risk, in terms of the sunk cost of undelivered outputs, in an Agile project could be as little as the cost of a single sprint because that is the longest between releases to production. In reality, there may be the outputs of several sprints built up awaiting release. This may offset the concerns about a lack of detail at the outset of the project, since the Agile project could be stopped more easily and with less money risked than a Standard project with a single release at its end.

Rather than the single post-project review exercise which may, or may not, take place at the end of a Standard project, an Agile project will be conducting reviews regularly, as retrospectives at the end of each iteration or sprint and so lessons should be learned and incorporate regularly. In a Standard project, the post-project review is the main review point unless it is following a gated control method.

Approach Choices

Before a Project

The importance of culture and team engagement is emphasised in Agile projects and is clearly important. However, the Standard project approach does not dismiss this and the actual differences in culture will very much depend on the organisation such that a Standard project can still have agility or be nimble in its execution.

How the budget is set varies with organisation, but Standard projects will tend to fit better into the conventional finance-driven annual or periodic budgeting process. Since many decisions are made, and detail worked out, once an Agile project is underway, this may be more difficult to accommodate.

It may be possible to divide the projects or IT budget into two parts: one part for known things or contracted support and maintenance services that can be estimated based on past history and supplier quotations, and so which looks like the normal plant and machinery or other equipment lines in a budget; the other part for things that will be delivered using Agile. This second part could be estimated in a similar manner to the marketing budget and managed by a responsible manager in the same way without having to have lots of up front detail.

This comparison is intended to show that organisations can and do budget using varying levels of detail: Agile project move into another category rather than require completely novel thinking. There are also many variations based on what is being purchased or built, how suppliers provide their forecasts and the combination of labour and non-labour.

Standard projects accommodate large organisations and hierarchies of stakeholders through requirements documentation and approval processes. The Agile project mechanism is to have empowered product owners as part of the project team. Superficial or incomplete empowerment will lead to problems.

Setting out the scope of a contract with another organisation is likely to be more straightforward with a Standard project, if not guaranteed to be more successful, whereas the challenge with an

Agile Approach is how to define contractual success in the absence of detailed scope. Compliance requirements are again likely to present difficulties for an Agile project, although they can be overcome.

There are questions of whether or not to have a PMO, which methodology or hybrid of methodologies to use, whether or not to treat Agile as a methodology, how to manage risks and what is actually planned that are specific to each organisation.

During a Project

The tools, or software systems, used are likely to be different, but tool choice and suitability will depend on the mix of Standard and Agile projects within the portfolio. The choice ranges from no tool at all in a paper-based and completely Agile portfolio to a tailored EPM tool gathering data from Standard and Agile projects in a mixed portfolio.

The constraints of the environment must be considered before the actual pattern or frequency of available new product or project outputs can be known. The differences between Agile and Standard projects range from extreme to undetectable and it is not automatically true that an Agile project will release more frequently even if it wants to.

A Release Management process is still likely to be linear and more like a Standard project in a complex or high risk environment such as a telecoms network or a banking system, whereas a software product environment such as ecommerce could release to production at the end of each Agile iteration or sprint.

After a Project

Agile methods are not inherently anti-documentation but with less paperwork and a higher-level definition of scope and requirements at the start of an Agile project, the audit trail is likely to be thinner and harder to follow. This may not matter if the project has gone well and everyone is content. The point of short iterations and regular reviews is that a project going off track can be corrected or terminated quickly and easily.

Conclusion

The circumstances where there is a choice to be made are numerous, and form the longest section of this white paper.

There are many differences between the two approaches, some of which we have highlighted in this paper, not least because one is a project management approach and the other is a set of techniques evolved from a software development approach.

In simple situations, those without multiple dependencies and many suppliers and stakeholders, it may be possible to choose one approach or the other and apply it to everything. In a typical mixed portfolio however, it is increasingly likely to find teams using each approach and this presents challenges for both management and reporting. Project Managers may find themselves having to change between approaches from project-to-project and reporting teams will have to establish comparable measurements if they are to report at a portfolio level.

Finally, the increasing profile of the Agile approach has caused a change in mindset in project management and, if it contributes to more agility and better delivery, it can only be beneficial.